What is Claimed is:

1. A power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto, an operator actuable switch for controlling the application of power to the motor, and a control circuit for modulating the power supplied to the motor in accordance with the position of said switch by varying the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit; the improvement wherein the frequency of the PWM control signal generated by said control circuit is less than 50 Hz.

2. The power tool of claim 1 wherein said frequency is within a range of between 10 Hz and 50 Hz.

3. A power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto, an operator actuable switch for controlling the application of power to the motor, and a control circuit for modulating the power supplied to the motor in accordance with the position of said switch by varying the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit; the improvement wherein said control circuit is adapted to selectively generate said PWM control signal at a first frequency that is sufficiently high to cause said motor to provide a substantially smooth application of torque to said output spindle over substantially the entire duty cycle range of said control signal, or at a second frequency that is sufficiently low to cause said motor to provide uneven bursts of torque to said output spindle over a substantial portion of the duty cycle range of said control signal.

4. The power tool of claim 3 further including a second operator actuable device for selectively setting the frequency of said PWM control signal.

5. The power tool of claim 4 wherein said second operator actuable device comprises a second switch for selectively setting the frequency of said PWM control signal to either a first high frequency greater than 1 KHz or a second low frequency less than 50 Hz.

6. The power tool of claim 4 wherein said second operator actuable device is adapted to selectively vary the frequency of said PWM control signal within a range that includes 10 Hz - 50 Hz.

7. A power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto, an operator actuable switch for controlling the application of power to the motor, and a control circuit for modulating the power supplied to the motor in accordance with the position of said switch; the improvement wherein said control circuit is adapted to modulate the power supplied to said motor while said switch is in a substantially fixed position so that the motor produces substantial variations in the torque applied to said output spindle.

8. The power tool of claim 7 wherein said control circuit is adapted to modulate the power supplied to the motor by varying the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit, and further wherein the frequency of said PWM control signal is less than 50 Hz.

9. A power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto, an operator actuable switch for controlling the application of power to the motor, and a control circuit for modulating the power supplied to the motor in accordance with the position of said switch; the improvement wherein said control circuit is adapted to modulate the power supplied to the motor such that with said switch in a substantially fixed position and the tool under an operative load condition, the motor produces a plurality of torque pulses that causes the output spindle of the tool to intermittently come substantially to a stop between successive torque pulses.

10. The power tool of claim 9 wherein said control circuit is adapted to modulate the power supplied to the motor by varying the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit, and further wherein the frequency of said PWM control signal is less than 50 Hz.

11. A method of controlling a power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto and a control circuit that is responsive to a first operator actuable device for controlling the application of power to the motor; the method comprising the steps of:

modulating the power to the motor in accordance with the position of said first operator actuable device by varying the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit; and

setting the frequency of said PWM control signal sufficiently low to cause the motor to provide uneven bursts of torque to said output spindle over a substantial portion of the duty cycle range of the control signal.

12. The method of claim 11 wherein the frequency of said PWM control signal is set to a frequency less than 50 Hz.

13. A method of controlling a power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto and a control circuit that is responsive to a first operator actuable device for controlling the application of power to the motor; the method comprising the steps of:

controlling the average level of power supplied to the motor in accordance with the position of said first operator actuable device; and

with said first operator actuable device in a substantially fixed position, varying the power supplied to the motor so that the motor produces substantial variations in the torque applied to said output spindle.

14. The method of claim 13 wherein the position of said first operator actuable device determines the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit, and further wherein the frequency of said PWM control signal is less than 50 Hz.

15. The method of claim 14 wherein said control circuit includes a second operator actuable device, and further including the step of setting the frequency of said PWM control signal in accordance with the position of said second operator actuable device.

16. A method of controlling a power tool having an electric motor for driving an output spindle having a tool holder operatively coupled thereto and a control circuit that is responsive to a first operator actuable device for controlling the application of power to the motor; the method comprising the steps of:

controlling the average level of power supplied to the motor in accordance with the position of said first operator actuable device; and

with said first operator actuable device in a substantially fixed position and the tool under an operative load condition, varying the power supplied to the motor so that the motor produces a plurality of torque pulses that causes the output spindle of the tool to intermittently come substantially to a stop between successive torque pulses.

17. The method of claim 16 wherein the position of said first operator actuable device determines the duty cycle of a pulse width modulated (PWM) control signal generated by the control circuit, and further wherein the frequency of said PWM control signal is less than 50 Hz.

18. The method of claim 17 wherein said control circuit includes a second operator actuable device, and further including the step of setting the frequency of said PWM control signal in accordance with the position of said second operator actuable device.

19. A power tool having an electric motor and a control circuit for modulating the power supplied to the motor by varying the duty cycle of a pulse width modulated (PWM) control signal generated at an output of the control circuit; the output of said control circuit being operative to switch from a first state to a second state when the magnitude of an input signal supplied thereto is less than a first threshold value and from said second state to said first state when the magnitude of said input signal exceeds a second threshold value greater than said first threshold value by a predetermined amount; an input circuit including a capacitor for producing said input signal in accordance with the charge on a first side of said capacitor and further including a charge circuit for charging the capacitor when the output of said control circuit is in said second state and a discharge circuit for discharging said capacitor when the output of said control circuit is in said first state; and a frequency control circuit for controlling the frequency of said PWM control signal by supplying a voltage signal to the other side of said capacitor the magnitude of which is substantially equal to zero when said capacitor is discharging and selectively variable between substantially zero and a value less than said predetermined amount when said capacitor is charging.

20. The power tool of claim 19 wherein said frequency control circuit includes a first diode having its cathode connected to said other side of said capacitor and its anode connected to a ground potential and a second diode having its anode connected to said other side of said capacitor and its cathode connected to receive said voltage signal.